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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,917

08/26/2003

Philip Francis Miele

7170

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7590

01/16/2007

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EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/647,917	<b>Applicant(s)</b> MIELE, PHILIP FRANCIS	
	<b>Examiner</b> Tamra L. Dicus	<b>Art Unit</b> 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The RCE is acknowledged.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al (US 5578371 ) in view of Randall et al (US 2004/0209074 A1).

The cited primary reference teaches the basic claimed invention including fiber material bonded by a formaldehyde binder of specific weight amounts containing including a bisulfite compound of specific amounts- col. 3, line 61- col. 4, line 19; col. 4, lines 27-54; col. 6, lines 23-30; claims 1 and 20. To claim 2, polyacrylic and mixtures of carboxylic with polyols are mixed (acrylic copolymer) with the binder (col. 3, lines 45-60). Concerning claims 3-10, the primary reference teaches ammonium bisulfite of similar composition- col. 4, lines 27-65; see Table 1 -claims 4-8;11 ;19. Concerning claims 11-13, the secondary reference teaches polyester fiber material as discussed above- see above, col. 1, line 21. The primary reference also teaches the claimed as also claimed- see above; also see references-col. 1, lines 36-53; col. 5, lines 5-35; col. 9, lines 60-63.

Although the primary reference teaches glass fiber mat (see above; claim 20),

The primary reference fails to teach such fibers being polymeric or nonwoven.

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The secondary reference to Randall et al, however, teaches that it is known in the art to blend glass fibers with synthetic fibers (polymer fibers) in nonwoven form, including polyester fiber material (see [0032-0034, 0065] and Example 2) bound with formaldehyde resin, similar material of Taylor.

It would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teaching of the secondary reference and bond such notoriously well known nonwoven fiber material such as polymeric fibers with the primary reference's glass fibers. Such a combination would have been obvious as both references teach glass fibers with formaldehyde and the secondary reference teaches the addition of synthetic fibers in nonwoven form are equivalent to glass fibers, or blended with glass fibers, and are also commercially available useful in making coated mats in structural buildings. See Randall, [0032-0034, 0065] and Example 2.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al (US 5578371 ) in view of Randall et al (US 2004/0209074 A1), as applied to claims 1, 3-13 above, and further in view of Hummerich et al (US 6071994).

The combination is relied upon above.

While Taylor teaches acrylic copolymers, Hummerich is also provided for acrylic and the other variables in the list of instant claim 2.

Hummerich et al teaches that it is known in the art to utilize acrylic copolymer material and styrene in binder composition- col. 2, line 52; col. 3, lines 1-22 and lines 50-60; col. 5, lines

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14-21; col. 6, lines 15- 20; col. 9, lines 30-44; col. 10, lines 20-45. It is noted the reference teaches its binder mixed with formaldehyde- col. 9, lines 50-68, col. 10, lines 9-13.

It would have been obvious to one having ordinary skill in the art to have modified the combination to include the resins as claimed because Hummerich teaches they provide short drying times and high strength as cited above.

### ***Response to Arguments***

3. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

4. Noted reference: Graves teaches glass fiber mats used with formaldehyde resin as a binder exhibiting hot wet tensile strength.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

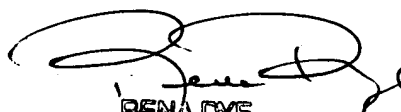
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tamra L. Dicus  
Examiner  
Art Unit 1774

December 14, 2006



RENA DYE  
SUPERVISORY PATENT EXAMINER  
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